

**Notice of Allowability**

Application No.

10/692,539

Applicant(s)

CHEN, EMEST C.

Examiner

Lawrence B. Williams

Art Unit

2611

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 20 Decembr 2007.
2. ☒ The allowed claim(s) is/are 1-4, 6-12, 14-20, 22-24, renumbered as 1-4, 5-11, 12-18, 19-21, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                                 |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material         | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|  | 9. <input type="checkbox"/> Other _____.  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 20 December 2007 has been entered.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 20 December 2007 was filed after the mailing date of the Notice of Allowance on 20 September 2007. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Specification***

3. The modifications to the specification were received on 20 December 2007. These modifications are accepted by the examiner.

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Georgann S. Grunebach on 04 September 2007.

The application has been amended as follows:

- a.) The claim after claim 7, mistakenly labeled 1, should be labeled 8. Please change 1 to 8.

### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The instant application discloses a method and apparatus for measuring the phase noise of an low noise block (LNB) and other devices while the device under test is on line is disclosed. A search of prior art records has failed to anticipate or render obvious:

“a system for measuring phase noise, comprising: a tuner for tuning a signal from a low-noise block converter (LNB) and converting the signal to a baseband signal; at least one analog-to-digital converter (ADC) for capturing data from the baseband signal; a timing processor for acquiring and tracking symbol timing of the captured data of the baseband signal; a carrier processor for determining unwrapped phase history data from the tracked symbol timing; a line fitting processor for determining a linear phase by fitting a straight line to the unwrapped phase history data; and a subtractor for subtracting the linear phase from the phase history data to produce a residual phase of the carrier, wherein the residual phase of the carrier is substantially a performance measurement of the LNB” as disclosed in claim 1.

“a method for measuring phase noise, comprising the steps of: tuning a signal from a low noise block converter (LNB) and converting the signal to a baseband signal; capturing data from the baseband signal; acquiring tracking the captured data of the baseband signal to determine symbol timing tracked data; determining unwrapped phase history from the symbol timing tracked data; fitting a straight line to the unwrapped phase history data to determine a linear phase; and subtracting the linear phase from the phase history data to produce a residual phase of the signal, wherein the residual phase is substantially a performance measurement of the LNB” as disclosed in claim 9.

“a system for measuring phase noise, comprising: means for tuning a signal from a low noise block converter (LNB) and converting the signal to a baseband signal; means for capturing data from the baseband signal; means for acquiring and tracking symbol timing of the captured data of the baseband signal; means for determining unwrapped phase history data from the tracked symbol timing; means for determining a linear phase by fitting a straight line to the unwrapped phase history data; and means for subtracting the linear phase from the phase history data to produce a residual phase of the signal, wherein the residual phase is substantially a performance measurement of the LNB” as disclosed in claim 17.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### CONCLUSION

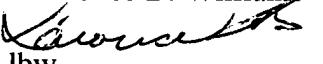
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammad can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams  
  
lbw  
January 12, 2008

  
MOHAMMED GHAYOUR  
SUPERVISORY PATENT EXAMINER